

II. Remarks

Claims 1-21 are pending in this application and stand rejected. Reconsideration of the application in view of the following remarks is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1, 2, 5-9 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,977,653 issued to Schmid, et al. ("Schmid"), in view of GB Patent No. 2,370,671 issued to Bauch, et al. ("Bauch"). In view of the remarks contained herein, Applicant respectfully submits that the rejections of claims 1, 2, 5-9 and 15 are traversed.

Applicant's invention is concerned with providing a sensor unit on a vehicle such that the sensor unit is subject to less vibration than conventional sensor-control unit arrangements, and is able to sense acceleration representative of the acceleration of the vehicle as a whole. One source of vibration may be from the control unit, which is rather large and heavy. Applicant has found that by forming a sensor unit distinct from the control unit, the sensor unit and the control unit may be spaced apart from each other to separate the sensor unit from vibrations generated by the control unit. In particular, the sensor unit is located in an area of the vehicle (i.e. a central longitudinal line of the vehicle, e.g., located on a central tunnel of the vehicle) with representative vehicle acceleration, and the control unit is located away from central longitudinal line (e.g. away from the sensor unit) where sufficient space may be allocated to

accommodate the control unit's relatively large size and further, to reduce vibration to the sensor unit. Applicant's application at paragraphs [0004]-[0010] and [0045].

Schmid discloses a detection configuration 20 (Examiner indicated as being most analogous to Applicant's claimed sensor unit) in communication with a central configuration 10 (Examiner indicated as being most analogous to Applicant's claimed control unit) to be used for side-impact detection and for firing a restraining device of a vehicle. The impact detection configuration 20 includes an acceleration sensor 5 and is disposed in a side part of the vehicle. The central configuration 10, which includes a control unit 1, is centrally positioned in the vehicle along the central longitudinal axis A'-A', for example in the proximity of the vehicle drive shaft tunnel or the dashboard. The central configuration 10 evaluates the signals from the detection configuration 20 to determine whether or not firing element 100 is to be fired. *Schmid* at Col. 4, lines 43-45, Col. 5, lines 55-59, Col. 7, lines 6-51, Col. 9, lines 19-25, and Figures 3 and 5. As previously noted by the Examiner in the Non-Final Office Action dated May 22, 2009 at page 3, Schmid fails to disclose that the central configuration 10 located away from the central longitudinal axis A-A' of the vehicle.

Bauch discloses a side impact sensing system 10 that has a first sensor unit 18 mounted on the door 36 of the vehicle 12 and a second sensor unit 26 mounted in the passenger compartment 52. The first and second sensor units provide signals to a controller 14 (most analogous to Applicant's claimed control unit) which compares the signals to determine whether to inflate an airbag 28. *Bauch* at Abstract. Notably, the controller 14 is located along the central longitudinal axis 44 of the vehicle. See Figure 1.

Schmid and Bauch do not independently or in combination, disclose, teach or suggest the present invention recited in claim 1. More specifically, Schmid and Bauch do not disclose, teach or suggest a control unit located away from the central longitudinal line of the vehicle and remotely from the sensor unit, which is located along the central longitudinal line. In that Schmid and Bauch lack the noted elements of claim 1, the rejections based thereon should be withdrawn.

The Examiner posits that *Schmid* at Col. 5, lines 56-59 teaches that the central configuration 10 is located away from the central longitudinal axis A—A'. Office Action at pages 2 and 12. This is however not the case. *Schmid* at Col. 5, lines 56-59 recites that "owing to its approximately central position in the vehicle, for example in the proximity of the vehicle drive shaft tunnel or the dashboard, there is provided the central configuration 10". The plain meaning of "central position in the vehicle...is provided the central configuration 10" is that the central configuration 10 is positioned at the center of the vehicle as is clearly indicated by its name of "**central** configuration". That is, the central configuration 10 is positioned centrally or midway between the left-hand and right-hand sides of the vehicle (i.e. which is along the central longitudinal axis A—A'), and centrally or midway between the forward and rearward ends of the vehicle. Midway between the forward and rearward ends of the vehicle along the central longitudinal axis A—A' is the middle-most section of the central longitudinal axis A—A'. Therefore, the central configuration 10 is positioned approximately at a middle-most section of the central longitudinal axis A—A' as is depicted in Figure 5.

Schmid's disclosure that the central configuration 10 can be positioned in the proximity of the vehicle drive shaft tunnel or the dashboard refers to the vertical positioning of the central configuration 10 correspondingly at the middle-most section of

the central longitudinal axis A—A'. That is, the drive shaft tunnel is located along the central longitudinal axis A—A' including the axis's middle-most section, and the dashboard is positioned midway between the forward and backward ends of the vehicle above the drive shaft tunnel. Since a dashboard typically spans between the left-hand and right-hand sides of the vehicle, the dashboard will inherently have a central section that is positioned along the central longitudinal axis A—A' and which covers the portion of the drive shaft tunnel correspondingly at the middle-most section of the central longitudinal axis A—A'. The "centrally positioned" central configuration 10 when positioned in the proximity of dashboard means that the central configuration 10 is positioned along the central longitudinal axis A—A' (e.g. at the middle-most section of the axis A—A') proximate the central section of the dashboard which is above the drive shaft tunnel. The fact that a dashboard typically extends outwardly from its center section to both the left-hand and right-hand sides (e.g. LH and RH outboard sections of the dashboard) of the vehicle does not contradict the "plain meaning" of "central position in the vehicle...is provided the central configuration 10" nor does Schmid disclose, teach or suggest an alternative meaning other than this plain meaning. Rather, positioning the central configuration 10 in the proximity of either the LH or RH outboard sections of the dashboard would contradict Schmid's teaching that the central configuration 10 is "centrally positioned" in the vehicle. If this were the case, then the central configuration 10 would not be "centrally positioned" in the proximity of either of the outboard sections of the dashboard and should be properly named "configuration 10" instead of "**central** configuration 10". Thus, Schmid does not disclose, teach or suggest the central configuration 10 control unit located away from the central longitudinal axis A—A' of the vehicle. Rather, the conclusion that Schmid and Bauch

disclose a control unit located away from the central longitudinal line of the vehicle and remotely from the sensor unit, which is located along the central longitudinal line, appears to be based on impermissible hindsight and not based on the these references. MPEP 2145 X-(A). Accordingly, Applicant believes claim 1 and its dependent claims 2, 5-9 and 15 are in a condition for allowance.

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid, in view of Bauch, and further in view of GB Patent No. 2,292,126 issued to Burton, et al. ("Burton"). In view of the remarks contained herein, Applicant respectfully submits that the rejections of claims 3 and 4 are traversed.

Since claims 3 and 4 depend on claim 1 and since Burton fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and Burton cannot render the claims of the present invention as obvious. The rejection under §103(a) is therefore improper and should be withdrawn.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, and further in view of U.S. Patent No. 6,113,138 issued to Hermann, et al. ("Hermann"). In view of the remarks contained herein, Applicant respectfully submits that the rejection of claim 10 is traversed.

Since claim 10 depends on claim 1 and since Hermann fails to disclose fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and Hermann cannot render the claims of the present invention as obvious. The rejection under §103(a) is therefore improper and should be withdrawn.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, and further in view of U.S. Patent No. 6,459,366 issued to Foo, et al. ("Foo"). In view of the remarks contained herein, Applicant respectfully submits that the rejection of claim 11 is traversed.

Since claim 11 depends on claim 1 and since Foo fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and Foo cannot render the claims of the present invention as obvious. The rejection under §103(a) is therefore improper and should be withdrawn.

Claims 12-14 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, and further in view of U.S. Publication No. 2002/0084636 issued to Lewallen, et al. ("Lewallen"). In view of the remarks contained herein, Applicant respectfully submits that the rejections of claims 12-14 and 16 are traversed.

Since claims 12-14 and 16 depend on claim 1 and since Lewallen fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and Lewallen cannot render the claims of the present invention as obvious. The rejections under §103(a) are therefore improper and should be withdrawn.

Claims 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, and further in view of U.S. Patent No. 6,522,992 issued to McCall, et al. ("McCall"). In view of the amendments and remarks contained herein, Applicant respectfully submits that the rejections of claims 17-20 are traversed.

Since claims 17-20 depend on claim 1 and since McCall fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and McCall cannot render the claims of the present invention as obvious. The rejections under §103(a) are therefore improper and should be withdrawn.

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Bauch, and further in view of U.S. Patent No. 6,145,389 issued to Ebeling, et al. ("Ebeling"). In view of the remarks contained herein, Applicant respectfully submits that the rejection of claim 21 is traversed.

Since claim 21 depend on claim 1 and since Ebeling fails to disclose a control unit located remotely away from a sensor unit and away from the central longitudinal line of the vehicle, the combination of Schmid, Bauch and Ebeling cannot render the claims of the present invention as obvious. The rejection under §103(a) is therefore improper and should be withdrawn.

Accordingly, Applicant believes that claims 3-4, 10-14 and 16-21 are in a condition for allowance.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted,

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